AUTHORITY TO CONSTRUCT
ISSUED PURSUANT TO
PREVENTION OF SIGNIFICANT DETERIORATION ("PSD")
REQUIREMENTS AT 40 CFR 52.21

PSD PERMIT NUMBER: SJ-99-02
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9

PERMITTEE: Elk Hills Power, LLC.

FACILITY LOCATION: Elk Hills Oil and Gas Field, California.

The February 5, 2001 Authority to Construct (ATC) (as amended on March 4, 2004) issued pursuant to the Prevention of Significant Deterioration (PSD) requirements of the Clean Air Act, as amended, 42 U.S.C. 7401 - 7671, et seq. is hereby revised in accordance with the application submitted on November 2, 2004 and the Federal Regulations governing PSD at 40 CFR 52.21. A copy of the revised permit follows.

Failure to comply with any condition or term set forth in this ATC is subject to enforcement pursuant to Section 113 of the Clean Air Act.

This ATC does not relieve the Permittee from the responsibility to comply with any other applicable provisions of the Clean Air Act (including 40 CFR 51, 52, 60, 61 and 63), other federal, Tribal or San Joaquin Valley Unified Air Pollution Control District (District) requirements.

This permit becomes effective immediately.

1-12-06
Date

Original signed by
Deborah Jordan
Director, Air Division
U.S. EPA, Region IX

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PROJECT DESCRIPTION

The power plant is a natural gas-fired combined cycle facility. The project will have a nominal electrical output of 500 MW and will be fuelled by locally-produced natural gas from the Elk Hills Oil and Gas Field. The key components of this power plant will include:

- Two combustion turbine-generators (CTG) equipped with dry low NO_x (DLN) combustors, evaporator inlet air coolers, and steam injection for power augmentation capability. Fuel for CTG and duct burners will be natural gas. Class "F" combustion turbine technology to be used for this project will be supplied by GE Power Systems.

- Two heat recovery steam generators (HRSG) equipped with duct burners.

- One steam turbine-generator.

- Air pollution control equipment to reduce emissions of NO_x and CO to the BACT levels specified in Section X of this permit, consisting of either SCR or SCONOx.

- Continuous emissions monitoring systems (CEMS) to measure and record NO_x, CO and O_2 concentrations in the stack exhaust.

PERMIT CONDITIONS

I. Permit Expiration

This Authority to Construct (ATC) shall become invalid (1) if construction is not commenced (as defined in 40 CFR 52.21(b)(8)) within 18 months after the approval takes effect, (2) if construction is discontinued for a period of 18 months or more, or (3) if construction is not completed within a reasonable time.

II. Notification of Commencement of Construction and Startup

The Permittee must notify EPA in writing of the anticipated date of initial startup (as defined in 40 CFR 60.2(o)) of the power plant not more than sixty (60) days nor less than thirty (30) days prior to such date and must notify EPA in writing of the actual data of commencement of construction and startup within fifteen (15) days after each date.

III. Facility Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this ATC must at all times be maintained in good working order and be operated as intended so as to minimize air pollutant emissions.

IV. Malfunction

A. Reporting

The Permittee must notify EPA by telephone, facsimile transmission, or electronic mail (r9.aeo@epa.gov) within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in Section X this ATC. In addition, the Permittee must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section X, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in Condition IV-B of this permit.

B. Treatment of Emissions

1. Definition of malfunction: A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source.

2. Emissions in excess of the limits specified in Section X of this permit shall constitute a violation and may be the subject of enforcement proceedings.

3. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in this Condition IV(B)(3)(ii) shall not be subject to penalty if the Permittee retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following:

    i. A malfunction caused the emissions in excess of the limits in Conditions X.D and X.E;

    ii. The emissions did not exceed the levels specified below:

    16 ppmvd NO_x (1-hour average, corrected to 15% O_2)
    6 ppmvd CO (24-hour average, corrected to 15% O_2);

iii. The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction;

iv. Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions;

v. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

vi. During the period of the malfunction the Permittee took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in Section X. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and

vii. The Permittee complied with the malfunction reporting requirements of Condition IV-A of this permit.

4. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit.

5. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit.

V. Right of Entry

The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credentials, must be permitted:

1. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this ATC; and

2. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this ATC; and

3. to inspect any equipment, operation, or method required in this ATC; and

4. to sample emissions from the source(s).

VI. Transfer of Ownership

In the event of any changes in control or ownership of the facilities to be constructed, the ATC must be binding on all subsequent owners and operators. The Permittee must notify the succeeding owner and operator of the existence of this ATC and its conditions by letter, a copy of which must be forwarded to the EPA.

VII. Severability

The provisions of this ATC are severable, and, if any provision of the ATC is held invalid, the remainder of this ATC must not be affected thereby.

VIII. Other Applicable Regulations

The Permittee must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR 52, 60, 61, 63, 70 and all other applicable federal, state, and local air quality regulations.

IX. Paperwork Reduction Act

Any requirements established by this permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act because this permit is not an "information collection request" within the meaning of 44 U.S.C. 3502(4), 3502 (11), 3507, 3512, and 3518. Furthermore, this permit and any information gathering and reporting requirements established by this permit are exempt from OMB review under the Paperwork Reduction Act because it is directed to fewer than ten persons, 44 U.S.C. 3502(4) and 3502(11); 5 1320.5(a).

X. Special Conditions

A. Certification

The Permittee must notify the EPA in writing of compliance with Conditions X.B and X.G below, and must make such notification within fifteen (15) days of such compliance. The letter must be signed by a responsible official of the Permittee.

B. Air Pollution Control Equipment and Operation

1. On or before the date of startup of the power plant, and thereafter (as defined in 40 CFR 60.2), the Permittee must install, continuously operate, and maintain the air pollution controls (either SCR or SCONOx) and perform any necessary operations to minimize emissions to or below the BACT emissions levels specified under Conditions X.D-E of this ATC.

2. During any CTG startup event, ammonia injection must be initiated as soon as the SCR system catalyst temperature exceeds 500 degrees F. In no case shall the non-operational period of the ammonia injection system exceed 6 hours during an extended startup and 2 hours during a regular startup.

C. Performance Tests

1. Within 60 days after achieving the base load, but no later than 180 days after initial startup of equipment (as defined in 40 CFR 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee must conduct performance tests (as described in 40 CFR 60.8) for NO_x, and CO on the exhaust stack gases. The Permittee must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee, and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity.

2. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The following test methods must be used:

   a. Performance tests for the emissions of NO_x must be conducted using EPA Methods 1-4 and 7E.

   b. Performance tests for the emissions of CO must be conducted using EPA Methods 1-4 and 10.

   In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA.

   The Permittee must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable

performance test plan and to arrange for an observer to be present at the test.

3. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 CFR 60.8(e).

D. Emission Limits for CO

On and after the date of startup, the Permittee must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits:

1. The more stringent of 12.5 lbs/hr or 4.0 ppmvd @ 15% O_2, 3-hour rolling average during normal operation from each CTG exhaust stack.

2. The combined annual emissions rate of 831,008 lbs from two CTGs and HRSGs based on 12-month rolling average.

E. Emission Limits for NO_x

On and after the date of startup, the Permittee must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits:

1. The more stringent of 15.8 lbs/hr or 2.5 ppmvd @ 15% O_2, one-hour average during normal operation from each CTG exhaust stack.

2 The combined annual emissions rate of 335,022 lbs from two CTGs and HRSGs based on 12-month rolling average.

F. Emission Limits During Startup and Shutdown Events

1. Startup Events
   a. For the purposes of this ATC, a startup event shall be defined as the period beginning with ignition of the CTG and lasting until the equipment has reached a continuous operating level and operating permit limits. If both turbines are started in sequence, the startup event shall begin with ignition of the first CTG and last until both CTGs have reached continuous operating levels and operating permit limits.

   b. For the purposes of this ATC, an "extended" startup event shall be defined as a startup that occurs after the steam turbine has

been shut down for 72 hours or more. The duration of extended startup events shall not exceed 6 hours.

c. For the purposes of this ATC, a "regular" startup event shall be defined as a startup that occurs after the steam turbine has been shut down for less than 72 hours. The duration of regular startup events shall not exceed 2 hours.

d. During startup of any CTG, the combined emissions from both CTGs and HRSGs exhausts must not exceed:

NO_x:
800 lbs/event for extended startup events
320 lbs/event for regular startup events

CO:
3,600 lbs/event for extended startup events
2,880 lbs/event for regular startup events

e. For the purposes of Conditions X.F.1.b and X.F.1.c, the amount of time that the steam turbine is shut down shall be defined as the number of hours between the closing and opening of the breaker on the steam turbine.

2. Shutdown Events
   a. For the purposes of this ATC, a CTG shutdown event shall be defined as the period beginning with the lowering of equipment from base load and lasting until 1) fuel flow is completely off and combustion has ceased, or 2) when the unit ramps back up after an aborted shutdown, the attainment of minimum load. The duration of shutdown events shall not exceed 1 hour.

   b. During shutdown of any CTG, the combined emissions from both CTGs and HRSGs exhausts must not exceed:

   NO_x: 102.5 lbs/event
   CO: 222.0 lbs/event

3. Duct burning must not be employed during either startup or shutdown sequence.

4. All CEMs must be operating during startup and shut down events.

5. The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations

based on the CEM data. These records must be kept for five years following the date of such events.

G. Continuous Monitoring Systems

1. Prior to the date of startup and thereafter, the Permittee must install, maintain and operate the following continuous monitoring systems in the CTG exhaust stacks:

   a. Continuous emissions monitoring systems (CEMS) to measure stack gas NO_x, CO and O_2 concentrations. The systems must meet EPA monitoring performance specification (40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specifications 2, 3 and 4).

   b. A continuous monitoring system to measure the quantity of fuel burned. The fuel rate must be measured and recorded at least at an hourly rate.

H. Reporting and Record Keeping

1. The Permittee must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 CFR 60 Appendices A-B and/or 40 CFR 75 recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records.

2. The Permittee must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 CFR 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup.

3. In addition to reporting requirements under Condition IV.A of this permit, the Permittee must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following:

   a. The magnitude of the excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions.

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported.

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.

d. When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report.

e. Excess emissions must be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM exceeds the maximum emission limits set forth in Condition X.E or any 3-hour period during which the average emissions of CO exceed the maximum emission limits set forth in Conditions X.D.

4. Excess emissions indicated by the CEMS must be considered violations of the applicable emission limit for the purpose of this permit.

5. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR 60, Appendix F, must be available upon request to EPA.

6. The Permittee must keep a monthly record of all fuel uses.

I. New Source Performance Standards

The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator must meet all applicable requirements of 40 CFR 60 Subparts A, Da and GG of these regulations.

J. Fuel Use

The Permittee must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf).

XI. Agency Notifications

All correspondence as required by this Approval to Construct/Modify must be forwarded to:

A. Director, Air Division (Attn: Air-3)
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901
Tel: (415) 947-8715
Fax: (415) 947-3579

B. Chief, Stationary Source Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

C. Air Pollution Control Officer
San Joaquin Valley Unified APCD
2700 M Street, Suite 275
Bakersfield, CA 93301-2370